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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
SOMMERFELD, PAUL J

ART UNIT	PAPER NUMBER
2168	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	10/707,017	ZRUBEK ET AL.
Office Action Summary	Examiner	Art Unit	
	Paul J. Sommerfeld	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/27/2004*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-3, 5, 7-14, 16-19, and 21-32 are rejected under 35 U.S.C. 102(b) as

being anticipated by Aslam et al (Aslam, Javed; Pelekhov, Katya; Rus, Daniela; Static

and Dynamic Information Organization with Star Clusters, 1998, Department of

Computer Science, Dartmouth College, Hanover, NH, 10 pages).

As to claims 1 and 17, Aslam et al teaches a software method in a computer

system for automatically analyzing relationships between target and source documents

(p. 2 col. 1 line 58 through p. 2 col. 2 line 2), comprising the steps of:

receiving an autolink command by a link analysis server from an application .

program (p. 4 col. 2 line 7 through p. 5 col. 1 line 3);

accessing a processing profile identified in the autolink command (p. 5 col. 1

lines 1-3, processing profile is read on query, because both provide information

regarding how an autolink command is to be processed);

accessing source and target document data identified in the autolink command

(p. 5 col. 1 lines 2-3, source and target document data is read on several corpora);

performing a link analysis for identifying relationships based on comparing

similarity scores between target and source documents (p. 5 col. 1 lines 6-9); and

sending a response containing a link analysis result to the application program

(p. 5 col. 1 lines 6-9).

As to claims 2 and 18, Aslam et al teaches the step of receiving comprises

receiving an autolink command by a link analysis server from a user interface program

connected to the link analysis server (p. 4 Figure 3, showing a user interface for sending

an autolink command)

As to claims 3 and 23, Aslam et al teaches the step of accessing a processing

profile further comprises:

identifying an options element (p. 5 col. 1 lines 2-3);

identifying a threshold limit element defining a path to threshold limit values (p. 2

col. 2 lines 28-30);

identifying a mapping element for defining mappings between source and target

document data (p. 5 col. 1 lines 2-3, specifying corpora containing source and target

documents to be analyzed for links);

identifying an output element for defining output attributes including detail level 1,

detail level 2, detail level 3, detail level 4, persistence level 1, persistence level 2,

persistence level 3, persistence level 4; and identifying a datasource element for

defining a persistence data source (p. 5 col. 1 lines 20-22).

As to claim 5 and 19, Aslam et al teaches the step of accessing a processing profile comprises accessing a processing profile embedded online in the autolink command (p. 5 col. 1 lines 1-3, processing profile is read on query, because both provide information regarding how an autolink command is to be processed).

As to claim 7, Aslam et al teaches the source document data comprises an inline designation attribute, one or more source document key attributes, a no-source attribute for indicating target documents are compared to each other, a query attribute, a database attribute, a cache designation attribute, and a block size attribute (p. 5 col. 1 lines 1-3).

As to claim 8, Aslam et al teaches the step of accessing source document data comprises accessing source document data embedded inline with the autolink command (p. 5 col. 1 lines 2-3, source document data is equivalent to information specifying several corpora, because both pieces of information identify source documents).

As to claim 9, Aslam et al teaches the step of accessing source document data comprises accessing source document data from a similarity search server by issuing a query command to the similarity search server from the link analysis server (p. 4 col. 2

line 7 through p. 5 col. 1 line 2).

As to claim 10, <u>Aslam et al</u> teaches the target document data comprises an inline

designation attribute, one or more source document key attributes, a query attribute, a

database attribute, a cache designation attribute, and a block size attribute (p. 5 col. 1

lines 1-3).

As to claim 11, <u>Aslam et al</u> teaches the step of accessing target document data

comprises accessing target document data embedded inline in the autolink command

(p. 5 col. 1 lines 2-3, target document data is equivalent to information specifying

several corpora, because both pieces of information identify target documents).

As to claim 12, <u>Aslam et al</u> teaches the step of accessing target document data

comprises accessing target document data from a similarity search server by issuing a

query command to the similarity search server from the link analysis server (p. 4 col. 2

line 7 through p. 5 col. 1 line 2).

As to claim 13, <u>Aslam et al</u> teaches the step of performing a link analysis for

identifying relationships is based on a comparison selected from the group consisting of:

comparing one source document with many target documents (p.4 col. 2 lines 7-

8, since the system has the capability of running on a specified subcollection,

inherently, it has the capability of running on a specified subcollection consisting of a

single document);

comparing multiple source documents with multiple target documents in different

groups (p. 4 col. 2 line 7 through p. 5 col. 1 line 2, run on specific subcollection); and

comparing multiple documents within a group with each other (p. 4 col. 2 line 7

through p. 5 col. 1 line 2, run on whole collection).

As to claim 14, Aslam et al teaches the step of sending a response is selected

from the group consisting of (the use of the wording "a response is selected from the

group consisting of" necessitates that only one of the options be taught by the prior art

for rejection of this claim):

sending a response containing an error message;

sending a response containing a count of link matches;

sending a response containing a count of link matches and source documents;

sending a response containing a count of link matches, source documents, and

document scores that were used in a link match result (p. 5 col. 1 lines 6-9, the most

relevant documents and document-to-document similarity information is provided. A

count of the documents is inherent in the list of most relevant documents, since the

number of documents belonging to this list is the count. Document score is read on

document-to-document similarity information; p. 3 col. 1 lines 43-45 indicates a score

between documents. Source documents are contained in the document-to-document

similarity information, since this information shows the similarity between documents,

including any documents that happen to be in the set of source documents.); and

sending a response containing a count of link matches, source documents,

document scores and document attribute scores that were used in a link match result.

As to claim 16, Aslam et al teaches containing instructions for controlling a

computer system according to the software method of claim 1 (p. 4 col. 1 lines 2-4, the

method is implemented as a computer system, which inherently includes a computer-

readable medium containing instructions for controlling a computer system).

As to claim 21, Aslam et al teaches the source document is accessed from a

similarity search server (p. 4 col. 1 lines 7-8, search server is read on search engine).

As to claim 22, Aslam et al teaches the target data is accessed from a similarity

search server (p. 4 col. 1 lines 7-8, search server is read on search engine).

As to claim 24, Aslam et al teaches the means for receiving an autolink

command comprises an input processing section of the link analysis server (p. 5 col. 1

lines 1-6, an input processing section is inherent, since the system has the capability to

receive and process input).

As to claim 25, Aslam et al teaches the means for accessing the processing

profile, the source document data and the target document data comprises a data

manager section of the link analysis server (p. 5 col. 1 lines 1-6, a data manager section

is inherent, since the system has the capability to access a processing profile).

As to claim 26, <u>Aslam et al</u> teaches the means for performing a link analysis

comprises an engine manager section containing an engine core within the link analysis

section (p. 5 col. 1 lines 6-13, an engine manager section containing an engine core

within the link analysis section is inherent, since the system has the capability to

perform link analysis).

As to claim 27, <u>Aslam et al</u> teaches the means for sending a response is an

output section of the link analysis server (p. 5 col. 1 lines 6-9, an output section is

inherent, since the system has the capability to output the results of link analysis).

As to claim 28, <u>Aslam et al</u> teaches a data persistence section of the link analysis

server for storing response results (p. 5 col. 1 lines 6-9, a data persistence section is

inherent, since the system has the capability to store the results of link analysis).

As to claim 29, <u>Aslam et al</u> teaches a software method in a computer system for

automatically analyzing relationships between target and source documents (p. 2 col. 1

line 58 through p. 2 col. 2 line 2), comprising the steps of:

receiving an autolink command by a link analysis server from a requesting

application designating a processing profile, target documents and source documents

(p. 4 col. 2 line 7 through p. 5 col. 1 line 3);

accessing the processing profile from a database (p. 5 col. 1 lines 1-3,

processing profile is read on query, because both provide information regarding how an

autolink command is to be processed);

accessing similarity scores between attributes of the target documents and

attributes of the source documents from a similarity search server (p. 5 col. 1 lines 1-3,

processing profile is read on query, because both provide information regarding how an

autolink command is to be processed);

linking target document attributes and source document attributes within the link

analysis server based on comparative values of attribute similarity scores (p. 5 col. 1

lines 6-9);

sending results of the linking step to the requesting application (p. 5 col. 1 lines

6-9); and

saving the results in a persistence database (p. 5 col. 1 lines 6-11, inherently, the

results must be stored as an intermediate step before the results are provided as input).

As to claim 30, Aslam et al teaches the processing profile is embedded inline in

the autolink command (p. 4 col. 2 line 7 through p. 5 col. 1 line 3, issuing a query is

equivalent to an autolink command, since both initiate link analysis. A query is

equivalent to a processing profile, since it determines which data are to be processed, and how that data will be processed.).

As to claim 31, Aslam et al teaches the target document attributes and associated schema are embedded inline in the autolink command (p. 5 col. 1 lines 2-3, target document data is equivalent to information specifying several corpora, because both pieces of information identify target documents).

As to claim 32, Aslam et al teaches the source document attributes and associated schema are embedded inline in the autolink command (p. 5 col. 1 lines 2-3, source document data is equivalent to information specifying several corpora, because both pieces of information identify source documents).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aslam et al (Aslam, Javed; Pelekhov, Katya; Rus, Daniela; Static and Dynamic Information Organization with Star Clusters, 1998, Department of Computer Science, Dartmouth

College, Hanover, NH, 10 pages), in view of <u>Apte et al</u> (U.S. Patent Number 6,654,739

B1).

As to claim 4, <u>Aslam et al</u> does not explicitly teach specifying a stop-on count

attribute;

specifying an analysis-type attribute, including single, multiple, and group values;

specifying a count-type attribute, including match-count, statistical, and threshold;

specifying a minimum and maximum number of document links to be found;

specifying threshold limits for defining ranges of similarity scores for indicating

linked relationships, including attributes greater-than, greater-than-and-equal-to, less-

than, less-than-and-equal-to, equal-to, and not-equal-to; and

specifying scoring aggregation options, including attributes include-minimum,

include-maximum, and average-top-N-scores.

<u>Apte et al</u> teaches specifying a stop-on count attribute (col. 4 lines 26-27);

specifying an analysis-type attribute, including single, multiple, and group values

(col. 4 lines 28-29);

specifying a count-type attribute, including match-count, statistical, and threshold

(col. 5 lines 59-60);

specifying a minimum and maximum number of document links to be found (col.

4 lines 26-27, where the single value k acts as both a minimum and maximum, since

exactly k matching documents are computed);

specifying threshold limits for defining ranges of similarity scores for indicating

linked relationships, including attributes greater-than, greater-than-and-equal-to, less-

than, less-than-and-equal-to, equal-to, and not-equal-to (col. 5 lines 58-60); and

specifying scoring aggregation options, including attributes include-minimum,

include-maximum, and average-top-N-scores (col. 5 lines 58-60).

Therefore, it would have been obvious to one skilled in the art at the time the

invention was made to have modified the method of analyzing relationships between

documents taught by Aslam et al by the method of computing a similarity score taught

by Apte et al, because specifying a maximum number of document links to be found

enables efficient computation of the links (Apte et al col. 4 lines 33-35).

5.　　Claims 6, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Aslam et al (Aslam, Javed; Pelekhov, Katya; Rus, Daniela; Static and Dynamic

Information Organization with Star Clusters, 1998, Department of Computer Science,

Dartmouth College, Hanover, NH, 10 pages), in view of Lam et al (U.S. Patent

Publication 2003/0220858 A1).

As to claims 6 and 20, Aslam et al does not explicitly teach the step of accessing

a processing profile comprises accessing a processing profile from a persistence

database.

Lam et al teaches the step of accessing a processing profile comprises

accessing a processing profile from a persistence database (ines 1-2 of paragraph

[0121], accessing a stored link).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have modified the method of analyzing relationships between documents taught by Aslam et al by the step of storing links between similar records taught by Lam et al, because storing links allows the links to be used later (Lam et al lines 1-2 of paragraph [0121]).

As to claim 15, Aslam et al does not explicitly teach the step of storing the response containing the link analysis result in a persistence database.

Lam et al teaches the step of storing the response containing the link analysis result in a persistence database (lines 16-17 of paragraph [0120] and lines 1-2 of paragraph [0121], item 112 in Figure 1, indicating links produced as a result of a matching process are stored in a database).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have modified the method of analyzing relationships between documents taught by Aslam et al by the step of storing links between similar records taught by Lam et al, because storing links allows the links to be used later (Lam et al lines 1-2 of paragraph [0121]).

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patent Number 6,167,397, issued to Jacobson et al, for teaching a method of clustering documents in response to a query.

- U.S. Publication 2003/0172058 A1, issued to Namba, for teaching a method of calculating similarity between documents.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul J. Sommerfeld whose telephone number is 571 272-6545. The examiner can normally be reached on M-F 7:45 am - 4:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on 571 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TIM VO
PRIMARY EXAMINER